Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A universal serial bus (USB) remote host control driver, comprising:

a port for connecting to a network, the ~~said~~ remote host control driver configured to communicate with one or more USB device adapters via the ~~said~~ port over the network, each of the ~~said~~ one or more USB device adapters having a discrete network address;

a network protocol stack, the ~~said~~ protocol stack for encapsulating USB packets in network packets and for decapsulating USB packets from network packets;

a polling routine configured to poll each of possible USB device adapters connected to the network in accordance with a candidate list, and compile ~~create~~ a master list of only the USB device adapters which responded to the polling; and

a memory for storing the master list, the master list containing the discrete network address of each of the ~~said~~ one or more USB device adapters and an address(es) and a corresponding identifier of each USB device connected via the corresponding USB device adapter to the remote host control driver.

2. (Currently Amended) The USB remote host control driver of claim 1, wherein the ~~said~~ polling routine is further configured to contact each of the ~~said~~ USB device adapters which responded to the polling in accordance with the master list, identify each of the ~~said~~ USB devices connected to each USB device adapter, and store the identifications of the USB devices in the ~~said~~ memory.

3. (Original) The USB host control driver of claim 1, where the network packets are Ethernet packets.

4-5. (Cancelled)

6. (Currently Amended) An Internet gateway, comprising:

a port for connecting to the Internet; and

a universal serial bus (USB) remote host control driver, the ~~said~~ USB remote host control driver comprising:

(a) a port for connecting to a local network, the ~~said~~ remote host control driver configured to communicate with one or more USB device adapters via the ~~said~~ port over the network, each of the ~~said~~ one or more USB device adapters having a discrete network address;

(b) a local network protocol stack, the ~~said~~ protocol stack for encapsulating USB packets in local network packets and for decapsulating USB packets from local network packets;

(c) a polling routine configured to poll each of possible USB device adapters connected to the local network in accordance with a candidate list, and compile ~~create~~ a master list of only the USB device adapters which responded to the polling; and

(d) a memory for storing the master list, the master list containing the discrete network address of each of the ~~said~~ USB device adapters which responded to the polling and an identifier of each USB device connected via the corresponding USB device adapter to the remote host control driver.

7. (Original) The Internet gateway of claim 6, where the local network is an Ethernet.

8. (Previously Presented) The Internet gateway of claim 6, further comprising a processor configured to receive unencapsulated USB packets from the protocol stack.

9. (Previously Presented) The Internet gateway of claim 8, further comprising:
a means for connecting to a local video monitor.

10. (Previously Presented) The Internet gateway of claim 8, further comprising:
a means for connecting to a local telephone.

11. (Previously Presented) The Internet gateway of claim 8, further comprising:
a means for connecting to a public television cable.

12. (Previously Presented) The Internet gateway of claim 8, further comprising:
a means for connecting to a public telephone network.

13. (Withdrawn) A method for providing a signal from a USB device over a local network to a local processor, the method comprising:
generating a USB packet at the USB device;
encapsulating the USB packet in one or more network packets;
transmitting the network packets over the network;
decapsulating the USB packet from the network packets; and
providing the USB packet to the processor.

14. (Withdrawn) The method of claim 13, wherein the local network is an Ethernet.

15. (Withdrawn) The method of claim 13, wherein the USB device is a keyboard.

16. (Withdrawn) A method for establishing a connection between a local processor and a USB device over a local network, the method comprising:

configuring a USB device adapter candidate list, said list including the network address of at least one USB device adapter;

polling an address on the candidate list, said polling including encapsulating a USB packet in one or more network packets;

receiving a positive response from a USB device adapter to said polling, said receiving including decapsulating a USB packet from one or more network packets; and

adding the address and a USB device adapter identifier to a master list.

17. (Withdrawn) The method of claim 16, further comprising:

polling a port on a USB adapter device on the master list, said polling including encapsulating a USB packet in one or more network packets;

receiving a positive response from a USB device connected to said port, said receiving including decapsulating a USB packet from one or more network packets; and

enumerating a USB device in the operating system of the processor.

18. (Withdrawn) A method for providing a signal from a USB device to a processor on the Internet, the method comprising:

generating a USB packet at the USB device;

encapsulating the USB packet in one or more local network packets;

transmitting the local network packets over a local network;

decapsulating the USB packet from the local network packets;

encapsulating the USB packet in one or more IP packets;

transmitting the IP packets over the Internet; and

providing the IP packets to the processor.

19. (Withdrawn) An apparatus for providing a signal from a USB device over a local network to a local processor, comprising:

means for generating a USB packet at the USB device;

means for encapsulating the USB packet in one or more network packets;

means for transmitting the network packets over the network;

means for decapsulating the USB packet from the network packets; and

means for providing the USB packet to the processor.

20. (Withdrawn) The apparatus of claim 19, wherein the local network is an Ethernet.

21. (Withdrawn) The apparatus of claim 19, wherein the USB device is a keyboard.

22. (Withdrawn) An apparatus for establishing a connection between a local processor and a USB device over a local network, comprising:

means for configuring a USB device adapter candidate list, said list including the network address of at least one USB device adapter;

means for polling an address on the candidate list, said means for polling including means for encapsulating a USB packet in one or more network packets;

means for receiving a positive response from a USB device adapter to said polling, said means for receiving including means for decapsulating a USB packet from one or more network packets; and

means for adding the address and a USB device adapter identifier to a master list.

23. (Withdrawn) The apparatus of claim 22, further comprising:

means for polling a port on a USB adapter device on the master list, said means for polling including means for encapsulating a USB packet in one or more network packets;

means for receiving a positive response from a USB device connected to said port, said means for receiving including means for decapsulating a USB packet from one or more network packets; and

means for enumerating a USB device in the operating system of the processor.

24. (Withdrawn) An apparatus for providing a signal from a USB device to a processor on the Internet, comprising:

means for generating a USB packet at the USB device;

means for encapsulating the USB packet in one or more local network packets;

means for transmitting the local network packets over a local network;

means for decapsulating the USB packet from the local network packets;

means for encapsulating the USB packet in one or more IP packets;

means for transmitting the IP packets over the Internet; and

means for providing the IP packets to the processor.

25. (Withdrawn) A program storage device readable by a machine, embodying a program of instructions executable by the machine to perform a method for providing a signal from a USB device over a local network to a local processor, the method comprising:

generating a USB packet at the USB device;

encapsulating the USB packet in one or more network packets;

transmitting the network packets over the network;

decapsulating the USB packet from the network packets; and

providing the USB packet to the processor.

26. (Withdrawn) The device of claim 25, wherein the local network is an Ethernet.

27. (Withdrawn) The device of claim 25, wherein the USB device is a keyboard.

28. (Withdrawn) A program storage device readable by a machine, embodying a program of instructions executable by the machine to perform a method for establishing a connection between a local processor and a USB device over a local network, the method comprising:

configuring a USB device adapter candidate list, said list including the network address of at least one USB device adapter;

polling an address on the candidate list, said polling including encapsulating a USB packet in one or more network packets;

receiving a positive response from a USB device adapter to said polling, said receiving including decapsulating a USB packet from one or more network packets; and

adding the address and a USB device adapter identifier to a master list.

29. (Withdrawn) The device of claim 28, wherein the method further comprising:

polling a port on a USB adapter device on the master list, said polling including encapsulating a USB packet in one or more network packets;

receiving a positive response from a USB device connected to said port, said receiving including decapsulating a USB packet from one or more network packets; and

enumerating a USB device in the operating system of the processor.

30. (Withdrawn) A program storage device readable by a machine, embodying a program of instructions executable by the machine to perform a method for providing a signal from a USB device to a processor on the Internet, the method comprising:

generating a USB packet at the USB device;

encapsulating the USB packet in one or more local network packets;

transmitting the local network packets over a local network;

decapsulating the USB packet from the local network packets;

encapsulating the USB packet in one or more IP packets;

transmitting the IP packets over the Internet; and

providing the IP packets to the processor.

31. (Currently Amended) A serial data bus remote host control driver, comprising:

a port for connecting to a network, the ~~said~~ remote host control driver configured to communicate with one or more serial data bus device adapters via the ~~said~~ port over the network, each of the ~~said~~ one or more serial data bus device adapters having a discrete network address;

a network protocol stack, the ~~said~~ protocol stack for encapsulating serial data bus packets in network packets and for decapsulating serial data bus packets from network packets;

a polling routine configured to poll each of possible device adapters connected to the network in accordance with a candidate list, and compile ~~create~~ a master list of only the serial data bus device adapters which responded to the polling; and

a memory for storing the master list, the master list containing the discrete network address of each of the ~~said~~ device adapters which responded to the polling and an identifier of each serial data bus device connected via the corresponding serial data bus device adapter to the remote host control driver.

32. (Currently Amended) The serial data bus remote host control driver of claim 31, wherein the ~~said~~ polling routine is further configured to contact each of the ~~said~~ device adapters which responded to the polling in accordance with the master list, identify each of the ~~said~~ serial data bus devices connected to each device adapter, and store the identifications of the serial data bus device in the ~~said~~ memory.

33. (Previously Presented) The serial data bus host control driver of claim 31, where the network packets are Ethernet packets.

34-35. (Cancelled)

36. (Currently Amended) An Internet gateway, comprising:

a port for connecting to the Internet; and

a serial data bus remote host control driver, the ~~said~~ serial data bus remote host control driver comprising:

(a) a port for connecting to a local network, the ~~said~~ remote host control driver configured to communicate with one or more serial data bus device adapters via the ~~said~~ port over the network, each of the ~~said~~ one or more serial data bus device adapters having a discrete network address;

(b) a local network protocol stack, the ~~said~~ protocol stack for encapsulating serial data bus packets in local network packets and for decapsulating serial data bus packets from network packets;

(c) a polling routine configured to poll each of possible device adapters connected to the network in accordance with a candidate list, and compile ~~create~~ a master list of only the serial data bus device adapters which responded to the polling; and

(d) a memory for storing the master list, the master list containing the discrete network address of each of the ~~said~~ device adapters which responded to the polling and an identifier of each serial data bus device connected via the corresponding serial data bus device adapter to the remote host control driver.

37. (Previously Presented) The Internet gateway of claim 36, where the local network is an Ethernet.

38. (Previously Presented) The Internet gateway of claim 36, further comprising a processor configured to receive unencapsulated serial data bus packets from the protocol stack.

39. (Previously Presented) The Internet gateway of claim 38, further comprising a means for connecting to a local video monitor.

40. (Previously Presented) The Internet gateway of claim 38, further comprising a means for connecting to a local telephone.

41. (Previously Presented) The Internet gateway of claim 38, further comprising a means for connecting to a public television cable.

42. (Previously Presented) The Internet gateway of claim 38, further comprising a means for connecting to a public telephone network.

43. (Currently Amended) A universal serial bus (USB) remote host control driver, comprising:

means for connecting to a network, the ~~said~~ remote host control driver configured to communicate with one or more USB device adapters via the ~~said~~ means for connecting over the network, each of the ~~said~~ one or more USB device adapters having a discrete network address;

means for encapsulating USB packets in network packets and for decapsulating USB packets from network packets;

means for polling each of possible USB device adapters connected to the network in accordance with a candidate list, and compile ~~create~~ a master list of only the USB device adapters which responded to the polling; and

means for storing the master list, the ~~mast~~ master list containing the discrete network address of each of the ~~said~~ USB device adapters which responded to the polling and an identifier

of each USB device connected via the corresponding USB device adapter to the remote host control driver.

44. (Cancelled)

45. (Currently Amended) An Internet gateway, comprising:

means for connecting to the Internet; and

a universal serial bus (USB) remote host control driver, the ~~said~~ USB remote host control driver comprising:

(a) means for connecting to a network, the ~~said~~ remote host control driver configured to communicate with one or more USB device adapters via the ~~said~~ means for connecting over the network, each of the ~~said~~ one or more USB device adapters having a discrete network address;

(b) means for encapsulating USB packets in network packets and for decapsulating USB packets from network packets;

(c) means for polling each of possible USB device adapters connected to the network in accordance with a candidate list, and compile ~~create~~ a master list of only the USB device adapters which responded to the polling; and

(d) means for storing the master list, the ~~mast~~ master list containing the discrete network address of each of the ~~said~~ USB device adapters which responded to the polling and an identifier of each USB device connected via the corresponding USB device adapter to the remote host control driver.

46. (Currently Amended) A serial data bus remote host control driver, comprising:

means for connecting to a network, the ~~said~~ remote host control driver configured to communicate with one or more serial data bus device adapters via the ~~said~~ means for connecting over the network, each of the ~~said~~ one or more serial data bus device adapters having a discrete network address;

means for encapsulating serial data bus packets in network packets and for decapsulating serial data bus packets from network packets;

means for polling each of possible device adapters connected to the network in accordance with a candidate list, and compile ~~create~~ a master list of only the serial data bus device adapters which responded to the polling; and

means for storing the master list, the master list containing the discrete network address of each of the ~~said~~ device adapters which responded to the polling and an identifier of each serial data bus device connected via the corresponding serial data bus device adapter to the remote host control driver.

47. (Cancelled)

48. (Currently Amended) An Internet gateway, comprising:

means for connecting to the Internet; and

a serial data bus remote host control driver, the ~~said~~ serial data bus remote host control driver comprising:

(a) means for connecting to a network, the ~~said~~ remote host control driver configured to communicate with one or more serial data bus device adapters via the ~~said~~ means for connecting over the network, each of the ~~said~~ one or more serial data bus device adapters having a discrete network address;

(b) means for encapsulating serial data bus packets in network packets and for decapsulating serial data bus packets from network packets;

(c) means for polling each of possible device adapters connected to the network in accordance with a candidate list, and compile ~~create~~ a master list of only the serial data bus device adapters which responded to the polling; and

(d) means for storing the master list, the master list containing the discrete network address of each of the ~~said~~ device adapters which responded to the polling and an identifier of each serial data bus device connected via the corresponding serial data bus device adapter to the remote host control driver.

49. (Currently Amended) The Internet gateway of claim 6, wherein the ~~said~~ polling routine is further configured to contact each of the ~~said~~ device adapters which responded to the polling in accordance with the master list, identify each of the ~~said~~ USB devices connected to each device adapter, and store the identifications of the USB devices in the ~~said~~ memory.

50. (Currently Amended) The Internet gateway of claim 36, wherein the ~~said~~ polling routine is further configured to contact each of the ~~said~~ device adapters which responded to the polling in accordance with the master list, identify each of the ~~said~~ serial data bus devices connected to each device adapter, and store the identifications of the serial data bus devices in the ~~said~~ memory.

51. (Currently Amended) The USB remote host control driver of claim 43, wherein the ~~said~~ means for polling is further configured to contact each of the ~~said~~ device adapters which responded to the polling in accordance with the master list, identify each of the ~~said~~ USB

devices connected to each USB device adapter, and store the identifications of the USB devices in the ~~said~~ means for storing.

52. (Currently Amended) The Internet gateway of claim 45, wherein the ~~said~~ means for polling is further configured to contact each of the ~~said~~ USB device adapters which responded to the polling in accordance with the master list, identify each of the ~~said~~ USB devices connected to each USB device adapter, and storing the identifications of the USB devices in the ~~said~~ means for storing.

53. (Currently Amended) The serial data bus remote host control driver of claim 46, wherein the ~~said~~ means for polling is further configured to contact each of the ~~said~~ device adapters which responded to the polling in accordance with the master list, identify each of the ~~said~~ serial data bus devices connected to each device adapter, and store the identifications of the serial data bus devices in the ~~said~~ means for storing.

54. (Currently Amended) The Internet gateway of claim 48, wherein the ~~said~~ means for polling is further configured to contact each of the ~~said~~ device adapters which responded to the polling in accordance with the master list, identify each of the ~~said~~ serial data bus devices connected to each device adapter, and storing the identifications of the serial data bus devices in the ~~said~~ means for storing.

55. (Currently Amended) A system comprising:

a universal serial bus (USB) remote host control driver; and

at least one universal serial bus (USB) device adapter, the ~~said~~ USB remote host control driver being connected to at least one USB device via the ~~said~~ at least one USB device adapter over a network,

wherein the ~~said~~ USB remote host control driver comprising:

(a) a port for connecting to the network, the ~~said~~ remote host control driver configured to communicate with the ~~said~~ at least one USB device adapter via the ~~said~~ port over the network, each USB device adapter having a discrete network address;

(b) a network protocol stack, the ~~said~~ protocol stack for encapsulating USB packets in network packets and for decapsulating USB packets from network packets;

(c) a polling routine configured to poll each of possible USB device adapters connected to the network in accordance with a candidate list, and compile ~~create~~ a master list of only the USB device adapters which responded to the polling; and

(d) a memory for storing the master list, the master list containing the discrete network address of each of the ~~said~~ USB device adapters which responded to the polling and an identifier of each USB device connected via the corresponding USB device adapter to the remote host control driver,

and wherein each of the ~~said~~ one or more USB device adapters comprises:

(a) a memory for storing an assigned network address;

(b) a network protocol stack, the ~~said~~ protocol stack for encapsulating USB packets in network packets and for decapsulating USB packets from the network packets; and

(c) a bridging task for receiving USB packets from one or more USB devices coupled to the corresponding USB device adapters and for passing USB device addressing information and the ~~said~~ USB packets to the ~~said~~ network protocol stack.

56. (Currently Amended) The system of claim 55, wherein the ~~said~~ polling routine is further configured to contact each of the ~~said~~ USB device adapters which responded to the polling in accordance with the master list, identify each of the ~~said~~ USB devices connected to each USB device adapter, and store the identifications of the USB devices in the ~~said~~ memory.

57. (Previously Presented) The system of claim 55, wherein the network packets are Ethernet packets.

58. (Currently Amended) A system comprising:

a serial data bus remote host control driver; and

at least one serial data bus device adapter, the ~~said~~ serial data bus remote host control driver connected to at least one serial data bus device via the ~~said~~ at least one the ~~said~~ serial data bus device adapter over a network,

wherein the ~~said~~ serial data bus remote host control driver comprising:

(a) a port for connecting to the network, the ~~said~~ remote host control driver configured to communicate with at least one serial data bus device adapter via the ~~said~~ port over the network, each of the ~~said~~ at least one serial data bus device adapter having a discrete network address;

(b) a network protocol stack, the ~~said~~ protocol stack for encapsulating serial data bus packets in network packets and for decapsulating serial data bus packets from network packets;

(c) a polling routine configured to poll each of possible device adapters connected to the network in accordance with a candidate list, and compile ~~create~~ a master list of only the serial data bus device adapters which responded to the polling; and

(d) a memory for storing the master list, the master list containing the discrete network address of each of the ~~said~~ device adapters and an identifier of each serial data bus device connected via the corresponding serial data bus device adapter to the remote host control driver,

and wherein each of the ~~said~~ at least one serial data bus device adapter comprises:

(a) a memory for storing an assigned network address;

(b) a network protocol stack, the ~~said~~ protocol stack for encapsulating serial data bus packets in network packets and for decapsulating serial data bus packets from the network packets; and

(c) a bridging task for receiving serial data bus packets from one or more serial data bus devices coupled to the corresponding device adapters and for passing serial data bus device addressing information and the ~~said~~ serial data bus packets to the ~~said~~ network protocol stack.

59. (Currently Amended) The system of claim 58, wherein the ~~said~~ polling routine is further configured to contact each of the ~~said~~ device adapters which responded to the polling in accordance with the master list, identify each of the ~~said~~ serial data bus devices connected to each device adapter, and store the identifications of the serial data bus devices in the ~~said~~ memory.

60. (Previously Presented) The system of claim 58, where the network packets are Ethernet packets.

61. (Currently Amended) A system comprising:

a universal serial bus (USB) remote host control driver; and

at least one USB device adapter, the ~~said~~ USB remote host control driver connected to the corresponding USB devices via the ~~said~~ at least one USB device adapter over a network,

wherein the ~~said~~ USB remote host control driver comprises:

(a) means for connecting to the network, the ~~said~~ remote host control driver configured to communicate with the ~~said~~ at least one USB device adapter via the ~~said~~ means over the network, each of the ~~said~~ at least one USB device adapter having a discrete network address;

(b) means for encapsulating USB packets in network packets and for decapsulating USB packets from network packets;

(c) means for polling each of possible USB device adapters connected to the network in accordance with a candidate list, and compile ~~create~~ a master list of only the USB device adapters which responded to the polling; and

(d) means for storing the master list, the master list containing the discrete network address of each of the ~~said~~ USB device adapters which responded to the polling and an identifier of each USB device connected via the corresponding USB device adapter to the remote host control driver,

and wherein each of the ~~said~~ USB device adapters comprises:

(a) means for storing an assigned network address;

(b) means for encapsulating USB packets in network packets and for decapsulating USB packets from the network packets; and

(c) means for receiving USB packets from one or more USB devices coupled to the corresponding USB device adapters and for passing USB device addressing information and the ~~said~~ USB packets to the ~~said~~ means for encapsulating.

62. (Currently Amended) The system of claim 61, wherein the ~~said~~ means for polling is further configured to contact each of the ~~said~~ USB device adapters which responded to the polling in accordance with the master list, identify each of the ~~said~~ USB devices connected to each USB device adapter, and store the identifications of the USB devices in the ~~said~~ means for storing.

63. (Currently Amended) A system comprising:

a serial data bus remote host control driver; and

at least one serial data bus device adapter, the ~~said~~ serial data bus remote host control driver connected to at least one serial data bus device via at least one serial data bus device adapter over a network,

wherein the ~~said~~ serial data bus remote host control driver comprising:

(a) means for connecting to the network, the ~~said~~ remote host control driver configured to communicate with the ~~said~~ at least one serial data bus device adapter via the ~~said~~ means over the network, each of the ~~said~~ at least one serial data bus device adapter~~s~~ having a discrete network address;

(b) means for encapsulating serial data bus packets in network packets and for decapsulating serial data bus packets from network packets;

(c) means for polling each of possible serial data bus device adapters connected to the network in accordance with a candidate list, and compile ~~create~~ a master list of only the serial data bus device adapters which responded to the polling; and

(d) means for storing the master list, the master list containing the discrete network address of each of the ~~said~~ at least one serial data bus device adapter and an identifier of each

serial data bus device connected via the corresponding serial data bus device adapter to the remote host control driver,

and wherein each of the ~~said~~ at least one serial data bus device adapters comprising:

(a) means for storing an assigned network address;

(b) means for encapsulating serial data bus packets in network packets and for decapsulating serial data bus packets from the network packets; and

(c) means for receiving serial data bus packets from one or more serial data bus devices coupled to the corresponding device adapters and for passing serial data bus device addressing information and the ~~said~~ serial data bus packets to the ~~said~~ means for encapsulating.

64. (Currently Amended) The system of claim 63, wherein the ~~said~~ means for polling is further configured to contact each of the ~~said~~ device adapters which responded to the polling in accordance with the master list, identify each of the ~~said~~ serial data bus devices connected to each device adapter, and store the identifications of the serial data bus devices in the ~~said~~ means for storing.

65. (Currently Amended) The USB remote host control driver of claim 1 wherein the ~~said~~ USB remote host control driver is further configured to configure the ~~said~~ candidate list manually.

66. (Currently Amended) The USB remote host control driver of claim 1, further comprising a plug-and-play routine to configure the ~~said~~ candidate list.

67. (Currently Amended) The serial data bus remote host control driver of claim 31 wherein the ~~said~~ serial data bus remote host control driver is further configured to configure the ~~said~~ candidate list manually.

68. (Currently Amended) The serial data bus remote host control driver of claim 31, further comprising a plug-and-play routine to configure the ~~said~~ candidate list.

69. (Currently Amended) The Internet gateway of claim 6 wherein the ~~said~~ USB remote host control driver is further configured to configure the ~~said~~ candidate list manually.

70. (Currently Amended) The Internet gateway of claim 6, further comprising a plug-and-play routine to configure the ~~said~~ candidate list.

71. (Currently Amended) The Internet gateway of claim 36 wherein the ~~said~~ serial data bus remote host control driver is further configured to configure the ~~said~~ candidate list manually.

72. (Currently Amended) The Internet gateway of claim 36, further comprising a plug-and-play routine to configure the ~~said~~ candidate list.

73. (Currently Amended) The system of claim 55 wherein the ~~said~~ USB remote host control driver is further configured to configure the ~~said~~ candidate list manually.

74. (Currently Amended) The system of claim 55, further comprising a plug-and-play routine to configure the ~~said~~ candidate list.

75. (Currently Amended) The system of claim 58 wherein the ~~said~~ serial data bus remote host control driver is further configured to configure the ~~said~~ candidate list manually.

76. (Currently Amended) The of claim 58, further comprising a plug-and-play routine to configure the ~~said~~ candidate list.